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ABSTRACT

This report summarizes and evaluates the 1969-70 Consortium Research Development (CORD) training and dissemination project conducted by Teaching Research, Oregon State System of Higher Education. The project provided a 2-week summer institute to train selected college and university staff from CORD institutions in the use of individualized, multimedia, self-instructional materials designed to furnish a curricular base for follow-up regional workshops. Section I discusses the method and operations of the workshop, whose participants were under obligation to provide a workshop at their home institutions for a minimum of 12 fellow staff members. Section II deals with the follow-up workshops, the general purpose of which was to familiarize faculty of colleges and small universities with the techniques of educational research and with the CORD workshops. Five recommendations regarding the use of the instructional materials were made. (AF)

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Final Report

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A PROJECT FOR RESEARCH, DEVELOPMENT, AND EVALUATION TRAINING

Chadwick Karr
Bette C. Porter

Teaching Research
A Division of the
Oregon State System of Higher Education
Monmouth, Oregon 97361

January, 1971

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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TEACHING RESEARCH
a Division of the Oregon State System of Higher Education

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SUMMARY

The Consortium Research Development (CORD) program is sponsored by the U.S. Office of Education to help colleges and small universities participate in educational research and development. This report summarizes and evaluates the 1969-70 CORD training and dissemination project conducted by Teaching Research, Oregon State System of Higher Education. This project provided a two-week summer institute at Teaching Research to train selected college and university staff from CORD institutions in the use of individualized multi-media self-instructional materials which were designed to furnish a curriculum base for follow-up regional workshops. Twenty-eight participants were trained of whom 22 have conducted one or more regional workshops. Attendance at regional workshops ranged from 10 to 107, with majority representation from college and university staffs.

Favorable comments on the materials by regional workshop participants outnumbered unfavorable comments four to one. Workshop administrators rank ordered instructional packages according to usefulness as follows: (1) Proposal Writing; (2) Experimental Design; (3) How To Use The ERIC System; (4) Statistics; (5) Affective Measures; (6) Measurement; (7) Evaluation; (8) Individually Prescribed Instruction; (9) Testing; (10) Sampling; (11) Competency Based, Field Centered, Personalized and Systematic Model for Elementary Teacher Education (ComField). It was concluded that the procedure followed for dissemination was effective in its multiplier effect, but that there were insufficient data from this project to determine either the usefulness or the effectiveness of the training materials.

Five recommendations are made:

1. The full set of these instructional materials should be disseminated only for the purpose of acquainting educators with the rapid expansion of RDD&E training and materials.

2. Since most of these materials are in the early stages of development, they should be field tested and revised as needed.

3. Additional instructional packages should be developed for the following topics: preparation of final reports, organizational structure of U.S.O.E., resource agencies, dissemination, implementation, field testing, and PPBS.

4. Through dissemination, tested training materials in research, development, dissemination and evaluation should be made available as rapidly as possible to pre-professional, graduate, and in-service training programs in both public schools and higher education.

5. In order to determine the impact of field-centered training projects using self-instructional materials, more effective means of evaluation will have to be devised and incorporated in the design of these projects. The focus of evaluation should shift from the reactions of the persons involved to the products they produce.

SECTION I

INTRODUCTION

The Consortium Research Development (CORD) Program constituted a major effort by the Bureau of Research[1] of the U.S. Office of Education to help smaller institutions in higher education participate in educational research and development. Their instructional programs have the same need for evaluation and further development as those of larger institutions. However, they lack the necessary instructional research and development capabilities. Throughout the last four years of the CORD program, Teaching Research Division of the Oregon State System of Higher Education has assisted in the development of such capabilities through direct training, production of training materials, and consultant services.

This report is a summary2 and evaluation of the 1969-70 CORD training and dissemination project conducted by Teaching Research. The dissemination portion of the project is described in Section II of this report. In line with its basic purposes, the project provided:

1) A summer institute to train selected college and university staff from CORD institutions in educational research, instructional development, and evaluation.

2) Self-instructional materials to furnish a curriculum base for regional workshops conducted by the staff trained at the summer institute.

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[1]The CORD program is now under the National Center for Educational Research and Development, Office of Education, U.S. Department of Health, Education and Welfare.

[2]For a detailed account of the 1969 CORD Summer Institute see: Kohl, Don (Ed.) A Project for Research, Development, and Evaluation Training, Interim Report, Project No. 9-0509, Grant No. OEG-0-9-47059-4498 [010], Office of Education, U.S. Department of Health, Education, and Welfare, July, 1970.

METHOD

Objectives

The general objectives of the summer institute were to produce:

1) A two-week individualized instructional program which would provide for:
   a) learner choice of content topics;
   b) learner choice of levels of competence within content topics;
   c) materials organized so that instructors could assume the role of consultants.
2) A widespread diffusion effect.

Areas of Instruction

The areas of instruction which were available to participants and for which instructional materials were packaged for use by summer institute participants were:

1) Instructional Systems Development
2) The Logic of Statistics
3) Tests
4) Evaluation
5) Measurement
6) Experimental Design
7) Proposal Writing
8) Affective Measures
9) Sampling Techniques and Survey Research
10) ERIC
11) Individually Prescribed Instruction

Participants

The 28 participants were selected from applicants from staffs of colleges and small universities throughout the United States by the directors of the nine Regional Research Program Offices, U.S. Office of Education. Each applicant and his responsible administrative officer contracted to conduct a short workshop for a minimum of 12 participants during the 1969-70 academic year. Participants at each workshop were to be selected from the participants' own peers. The host college was to furnish the released time required for the participant to conduct the workshop.

Program

A. The 1969 CORD Summer Institute. Teaching Research staff field tested a revision of materials used in previous CORD research training institutes. These materials were further refined for the present project. In addition, new materials were developed for the institute. The materials and procedures for each instructional area usually included:

1) An individualized self-paced multi-media instructional package. Each participant could use pre-tests to provide information to direct his learning to that set of topic areas appropriate to his need. Materials included slide-tapes, written textual materials, workbook exercises, and filmed and taped discussions. These were presented in individual booths by a modified audio-tutorial method. They were scheduled by the participant at his own pace.
2) Criterion tests over each component were available. Participants scheduled these tests individually.
3) Simulation exercises. Simulated problems were given in which the participants exercised, in a realistic context, those skills required.
4) Bibliographies that specified further self-study materials.

Teaching Research staff supplemented these materials by individual consultant services and small group conferences. As part of the program, participants could contract to develop, during the two weeks, a research or development proposal.

The duration of the summer institute was two weeks, beginning the 18th of August and ending August 30, 1969.

B. The diffusion or multiplier effect. Each participant agreed at the time of his initial selection to conduct a short workshop for a group of staff members at his host institution. This obligation was expanded in many cases, where persons attending these workshops represented institutions from the entire consortium area, and ranged up to about 200 participants. The Teaching Research Division supplied materials and techniques for the workshops. These workshops were scheduled by participants during the academic year, 1969-70. One or more will be held during the 1970-71 academic year.

Bette C. Porter, of the Teaching Research staff, served as the chief consultant in the preparation and planning for these workshops. Each participant, at his request, was supplied with packaged self-instructional materials. The participant conducting the workshop arranged the materials for access by his participants. Otherwise the instructional program was designed to place a minimal instructional or administrative burden on the workshop leader.

In addition to these materials, Teaching Research staff offered to assist each workshop through telephone conversations or by furnishing video taped TR panel responses to questions or topics submitted by regional workshops.

Evaluation

Evaluation by participants of individual packages is reported in the evaluation section for each package (see Interim Report). Overall evaluation of the project was designed to include measures of:

1) Attitudes of the participants toward the overall summer institute and toward particular topical areas.

2) Competencies achieved by participants' fellow staff in the subsequent workshops.
3) Attitudes of staff participants in the subsequent workshops.
4) Research, evaluation and development efforts undertaken or contributed by institute and workshop participants during the ensuing academic year.

Institute Tracking, Monitoring and Feedback System

The individualized character of the summer institute presented the staff with the problem of monitoring the institute. To meet that need, a tracking, monitoring, and evaluation feedback system was developed (see Interim Report). This system was designed to:

1) Facilitate participant interaction with the entire content of packages or their individual subparts called package components, and with the institute staff.
2) Enable the institute staff to monitor participant progress through the package components.
3) Facilitate the collection of evaluation data from participants immediately after an instructional encounter either with content material or institute staff.

OPERATIONS

Planning Phase

A funded planning phase was not requested in the original proposal since the planning had been largely completed prior to the submission of the original proposal April 4, 1969. Planning for this project was carried out primarily by Dr. Jack Crawford who wrote the original and revised proposals, and served as project director from May 1, 1969, to October 15, 1969. The planning was especially well done with respect to selection of topics and staff. The principal problem that can be attributed to the planning phase was an underestimation by more than 40 percent of the cost of conducting the summer institute and revising and duplicating the instructional materials for the regional workshops. The time required for revising, editing, duplicating and packaging the materials for regional workshops was also seriously underestimated.

Participants

The participants were an outstanding group of individuals. Because several were chosen on a last-minute basis and many were chosen without invoking a formal application and selection procedure, it is apparent that the pool from which participants were drawn was characterized by a very positive attitude toward training in research, development, and evaluation.

Twenty-two of the twenty-eight participants have conducted one or more regional workshops. Several participants are planning additional workshops for the 1970-71 academic year using CORD materials. Two workshops were deleted because CORD funds which were anticipated to help support the workshops were not provided by the Office of Education. Although the contractual agreements with the participants and their colleges should not have been dependent on supplementary funding, the loss of anticipated CORD funds in some Regions did prevent holding several of the workshops on time.

Staffing

With one exception, the staff members that served on the project were drawn from the regular Teaching Research staff. Many of them had participated in the previous CORD institutes both as instructors and as developers of instructional materials. Other TR staff members were assigned to fill support roles in keeping with their interests and capabilities. The outside staff member was brought in as a specialist in sensitivity training to conduct an all day and evening session in developing skills in handling social and emotional problems. The techniques demonstrated and the experiences through which the participants were put were not in keeping with the rest of the training program. The experiences were more affective than cognitive, were not self-instructional, and were not packaged.

Prior to the summer institute, the project staff was kept oriented to the specific objectives of the program by means of detailed memos

from the project director and by weekly staff meetings. Again the previous experience with other CORD institutes was invaluable. During the institute, the roles of the support staff had been so well defined and the packages so well organized that the main task of the instructional staff was to review the monitoring board periodically and help any participant who indicated he was having a problem with either the objectives of a given package or with the materials themselves. Also during the institute, different staff members were asked to meet with interested participants in small groups to hear about and discuss specialized programs being conducted at TR. These meetings were well attended and well received. Several participants expressed the wish that project staff could have been more readily available on an informal basis to talk about R, D and E topics, for example during lunch or after hours. Unless specifically requested, the majority of the instructional staff did not make itself accessible to the participants. To have made staff more readily accessible would have increased the cost and complexity of the institute. It would appear that it is possible to go too far in the direction of a packaged, self-instructional institute. Opportunities for professional interaction with instructional staff and perhaps with other participants is a wanted ingredient.

The ratio of staff to participants during the actual two weeks of the institute was approximately one to one. Most of the staff FTE was at the instructor or clerical level since the materials development by professional staff had been largely completed prior to the start of the institute. During the institute, the staff breakdown by role, rank, number, and FTE was as follows:

Role	Rank	Number	Total FTE
Administration	Professor	2	.50
Instruction	Professor	5	.50
	Assoc. Prof.	3	.50
	Asst. Prof.	3	.75
	Instructor	3	1.50
Support	Assoc. Prof.	1	.25
	Instructor	2	2.00
	Clerk	6	6.00
		25	12.00

This staff allocation was adequate both for providing service to the participants and as backup for the instructional materials. One of the main tasks of the support staff was transporting participants to and from a hotel in the nearest large city which was fifteen miles distant from the site of the institute. Some of the professional staff time was spent trouble shooting the instructional packages. Since more professional staff time was available on demand, and since it was not

requested, one can assume that there was sufficient professional FTE allocated to the workshop. If staff-participant instructional interaction had been part of the design of the institute, more professional staff FTE would have been required.

Orientation Program

As noted under Staffing, orientation of the staff was by means of staff meetings conducted by the director, and by explicit and detailed memos written by the director. There was a high level of communication among the staff both before and during the institute. Communication during the institute was greatly facilitated by the monitoring system. Both staff and trainees were kept informed of all aspects of the institute by the monitoring boards and the instructional packages librarian. For a detailed description of the monitoring system, see the Interim Report, pp. 11-21.

A dialogue the last day of the institute between the director and the participants resulted in a major commitment on the part of the director. He offered to furnish each participant at his request with a complete set of the instructional materials to keep at his home institution. It was further provided that at his own expense each participant could duplicate from his original set additional copies of those slides and tapes which he needed to conduct his workshop. It was also agreed that the instructional materials would be available to participants by October 10. Although it was not realized at the time the commitment was made, to furnish each participant with a complete set of materials would overspend the grant and place a heavy financial burden on Teaching Research. The October 10 deadline also proved to be too optimistic. Throughout most of the first half of the academic year, providing instructional materials in time to meet workshop deadlines was a constant challenge. The main problem was in duplicating and arranging slides which made up the many slide-tapes. There were approximately 750 slides in each set of materials which had to be sorted and labeled for use.

Program Operation

The summer institute objectives as listed under INTRODUCTION were as follows:

1) A two-week individualized instructional program which would provide for:
   a) learner choice of content topics;
   b) learner choice of levels of competence within content topics;
   c) materials organized so that instructors could assume the role of consultants;
2) A widespread diffusion effect.

Participants were provided with an extensive array of content topics. During the two-week period, they were able to complete relatively few of the packaged components. Most of their activities involved a careful study of the organization and content of various packages. The intent had been that by working through the packages, doing the exercises,

and taking criterion tests, the participants would learn about R, D and E topics. Since participants did not as a general rule take criterion tests which were included in the packages, one might conclude that participants learned more about the packages as packages than about the topics the packages attempted to teach.

Each package was designed to provide at least three levels of materials with each succeeding level requiring more background for successful acquisition. Either a participant already had the required background and could start at a more advanced level within a package, or he could obtain the necessary background by starting with the more introductory material. Tests of satisfactory performance were provided for each level. It was possible for a participant to test himself before starting a component within a package to determine if his level of performance was adequate without having to work through the exercises for that component.

The materials were organized so that instructors could for the most part assume the role of consultants. There was one exception during the first week in which the package on PERT had not reached the level of development and completeness that trainees could find their way through it without help from the authors. A second edition of this package was made available the second week which eliminated most of the problems which were experienced with the previous edition. Actually, the majority of the packages supplemented with some help from the package librarian provided so few blocks for the participants that staff was used very little as instructors. Most of the contacts with the project were consultative.

With respect to the second main objective--to provide a widespread diffusion effect--thirty-four sets of the packages were duplicated. Each set contained ten packages on different R, D and E topics. There were twenty-nine sound tapes of which sixteen combined slides with the tape. Sets of packages were sent to participants in the nine CORD regions, one set being provided for the Bureau of Research, Office of Education. These sets of materials have provided a basis for sixteen workshops with more planned.

With respect to new techniques, materials or equipment, the packages made extensive use of simulation and gaming as instructional devices. These are documented in the Interim Report. The main reference document was a major revision of the CORD Manual and Workbook completed in time for the summer institute. This revision was re-edited by Dr. Jack Crawford and Clark A. Smith and printed in December for distribution to participants and for sale to others. Highly innovative was the information monitoring system used during the institute to track participants and package use. This monitoring system is described in detail in the Interim Report.

The beginning and ending dates seemed satisfactory to all participants who attended, although some were delayed for unavoidable reasons such as car breakdown or serious illness of one or more family members accompanying a participant. The institute started on a Monday and ended on a Friday with the intervening weekend to be spent as participants wished. The duration was not nearly long enough for participants

to engage in depth with more than a few of the packages. However, a longer period of the same kinds of activities probably would have produced diminishing returns. Perhaps a third week could have been spent in training participants in how to set up their own workshops and how to tailor the use of the materials to their own instructional situations. The housing arrangements for participants tended to lock in the trainees to institute activities. To facilitate informal interaction among trainees, they were housed at a hotel in the nearest city which was fifteen miles away. They were picked up in the morning at 8:00 and returned at 5:30 p.m. The small college campus and town provided very few distractions for participants during the day.

Evaluation

Package evaluation. As reported in the Interim Report, participants were given the opportunity to write evaluative comments for various components of the packages which they studied. All of these comments were reproduced and appear at the end of each of the first ten instructional sections of the Interim Report. Comments ranged from worthless to excellent, with most toward the favorable end of the continuum. There were some suggestions for changes and improvements which were taken into account by package authors in their revisions prior to duplication for regional workshops.

Institute evaluation. On the last day of the summer institute, participants were given access to tape recorders on which to record their evaluation of the institute. These narrative evaluations were transcribed verbatim and appear in the Interim Report (pp. 141-146). Again, most comments were favorable and some included suggested changes, improvements or additions. These were also taken into account by package authors in revisions done prior to duplication for regional workshops.

Revision and Dissemination

Additional funds were granted by the U.S. Office of Education to revise, upgrade, duplicate and disseminate the self-instructional materials which were used in the CORD summer institute. The revisions were made on the basis of (1) individual formative evaluations made by 28 participants in the summer institute, (2) summative evaluations made by the participants at the end of the institute, and (3) the judgment of the developer revising each unit.

As the result of the institute experience, major revisions were made primarily in those packages which had received the most intensive use during the institute. These packages were Proposal Writing, Experimental Design, and Evaluation. New materials were added, instructions revised, and the general quality of the materials was upgraded.

On the basis of participant criticisms, some revisions and upgrading were done to all packages. Possibly because many of the packages were reviewed rather than completed by a majority of the summer institute participants, there were relatively few explicit criticisms or specific problems with the materials. Therefore, most

of these revisions were concerned with re-sequencing the units within packages, filling in obvious gaps in the materials, and improving the quality of the original materials from which the 34 master sets would be duplicated.

The package entitled Instructional Systems Development was not included in the set of materials sent to regional workshop administrators. This package was incomplete and was not in a sufficiently advanced stage of development to justify dissemination. At the present time a new and completely re-designed package on the development of instructional systems is undergoing formal field testing at Teaching Research.

A set of materials not available during the summer institute which describes the program entitled A Competency Based, Field Centered, Personalized and Systematic Model for Elementary Teacher Education (ComField) was included in each set of materials sent to regional workshop administrators.

The additional funds provided for duplicating the materials for dissemination to the 28 participants were found to be insufficient. Because of the large number of slide-tapes in a complete set of instructional packages, the cost of duplicating and distributing the sets exceeds the original amount budgeted for duplication by approximately 40% ($4,300).

SECTION II

INTRODUCTION

Section II is designed to report on the diffusion effect of the CORD summer institute, held in Monmouth, Oregon, August, 1969. As mentioned in Section I, participants in the summer institute were under an obligation to provide a workshop in their home institutions for a minimum of 12 fellow staff members. These workshops were scheduled separately by the individual participants throughout the 1969-70 academic year, with two remaining workshops to be held during the 70-71 year. The general purpose of the followup workshops was to familiarize faculty of colleges and small universities across the country with the techniques of educational research and with the CORD workshops, and are currently available through the summer institute participants for their individual study. Information for Section II of the report was gained primarily through the use of two forms which were mailed to workshop administrators. One evaluation form was designed to be filled out by workshop administrators, and the other form by their participants. Copies of these forms are in Appendix A of this report.

METHOD

Objectives

Since each summer institute participant was free to choose the topics he wished to pursue in his workshop, the objectives varied for individuals. The main goals for regional workshops as reported to Teaching Research are contained in Appendix B. As may be seen in Table I, three primary goals for a majority of the workshops were: a) to acquaint participants with the methods and procedures of educational research, b) to provide them with resource instructional materials, and c) to stimulate educational research in the participant's own CORD region.

Areas of Instruction Available for Regional Workshops

The areas of instruction that were available to workshop administrators were those that were used in the summer institute (see Section I). All but three of the summer institute participants requested, and received, all of the instructional packages available for the summer institute for use in their workshops with the exception of the package on developing instructional systems, which was not disseminated.

Participants

As may be seen in Table I, Appendix B, the majority of workshop participants were faculty members from colleges and small universities, the summer institute participants' home institutions. Academic areas from which participants were drawn varied greatly, from fields related to education to social and physical sciences, and mathematics. Four of the workshops were attended by personnel from public school districts, the majority of these being administrators. The number of institutions represented at the workshops varied from one to sixteen (see Table I, Appendix B).

Although the summer institute participants were committed only to small workshops, the regional workshops ranged in size from 10 to 107, with the mode falling in the range of 51 to 60 participants.

Procedure

Participants in the 1969 summer institute were contacted early in September, 1969, to determine the dates on which regional workshops would be given and the Teaching Research materials that would be needed. Copies of all requested materials were then duplicated, including slide-tapes, printed materials, various games that accompany instructional packages, and the ERIC booklet and recording. Materials were then sent to each summer institute participant in advance of his workshop date, along with the evaluation forms contained in Appendix A. These activities were coordinated by Bette C. Porter of the Teaching Research staff.

RESULTS

Regional Workshop Evaluations from Participants

Feedback from the regional workshops given by summer institute participants during the 1969-70 academic year is summarized by Table II, Appendix B. A copy of the form sent to each workshop administrator to give to a random sample of his participants may be found in Appendix A. From the evaluation forms received from 80 participants in these workshops, it may be seen that the majority of participants were college or small university faculty members. As noted above, the range of academic areas represented by these persons is wide.

As shown in Table II, the Teaching Research CORD materials that were most often used were the Proposal Writing package, developed by Dr. Jack Crawford and Dr. Cathy Kielsmeier, the Research Design package, also developed by Dr. Crawford, and the Evaluation materials, developed by the Evaluation staff at Teaching Research under the supervision of Dr. Frank G. Nelson. Of special interest to public school personnel and graduate students attending various workshops were the materials on Individually Prescribed Instruction (developed by Dr. Jack Edling and Mr. Jim Buck) and the package describing the use of the ERIC system, made available to CORD participants by Dr. Allen Lee.

In response to a question inquiring about the applicability of the materials to participants' needs and asking for a general reaction to the materials a participant used, as well as suggestions for improving the package, the primary response was that the materials were either "very good" or "excellent" (see Table II, Appendix B). Many participants who returned forms mentioned a specific program as being very good, and in general, these complied with the rank orders accorded various packages by the workshop administrators (see above). Also mentioned in response to question 2 on the participants' forms were that the materials provided a good overview, were clearly written, can be utilized in courses being taught either by the participant himself or by a colleague. On the negative side, a few responses referred to the poor technical quality of some of the materials, either slides sent by Teaching Research, or duplication done at the participant's home institution. Some suggestions for further development and the lines that it might follow were also received. These suggestions will be taken into account in any further revision of the CORD materials at Teaching Research.

When asked if they had attended the workshop with a particular goal in mind, most of the participants answered yes. In general, those that specified what their goal had been referred to such aims as "learning about educational research techniques" or "to become familiar with the materials that are available through CORD to be used at a later date." About 3/5's of the respondents who attended a workshop with a particular goal felt that they had reached it; the principal reason for not reaching their goals was that not enough time was allotted for the workshops.

That the lack of time set aside for regional workshops affected the participants' reaching their goals is also reflected in the responses

to questions 4 and 5: respondents felt that the main "competencies" that they gained were to familiarize themselves with the materials that could be used at a future time, either for personal study, or for use in classroom teaching, and to familiarize themselves with the areas of study within educational research, i.e., measurement, evaluation, design, proposal writing, statistics, etc.

When asked to list any products that might have resulted from the workshop, the majority of respondents replied that due to lack of time during the workshop, they had not produced any products, but that the main gain had been to familiarize themselves with the materials for future use. When the administrators of the regional workshops were asked about the competencies gained by their participants, nine of them responded that proposals had been written during the duration of the workshop, or had been started then, and completed later (see Table I, Appendix B). Five out of the 21 workshop administrators replied that specific projects had been undertaken during the workshop. The apparent discrepancy between workshop administrators' and participants' responses to this question is probably due to the relatively small number of participants' forms that were returned; it seems likely that the workshop administrators were more accurate in assessing the overall effect of their workshops.

Although the majority of respondents on the participants' form replied that the workshop served primarily to help them familiarize themselves with the materials or the areas of educational research, several did mention that they began a proposal, a project, or a series of studies.

Question 6 asked participants to "List any programs or projects in research, evaluation, or development that you have proposed or undertaken since the CORD workshop." Again, because many of the participants filled out these forms immediately upon completing the workshop, the majority of respondents answered that the question was not applicable to them. However, the next most common response was from persons who mentioned one project, followed by those who mentioned 3 or more projects (see Table II, Appendix B). These projects ranged from the implementation of new course offerings related to educational research, to administrative planning, to evaluation of new or innovative programs within school districts, the writing and submission to a funding agency of a proposal, etc.

Because it was recognized that a single mailed questionnaire could not suffice to provide all the relevant information about a group of workshops that had been planned and implemented by different persons, an attempt was made on the questionnaire to provide room for open comments. The most frequent response to the question, "Do you have any additional comments?" was that respondents felt that both the CORD materials developed at Teaching Research and the CORD workshop they had attended were a significant contribution to the stimulation of educational research in their area. The next most common response was that particular administrators of regional workshops had done an outstanding or a good job in coordinating the workshops. In only one case was it found that some participants felt a workshop was poorly organized and "a waste of time".

Several responses in each of the following categories were also received: 1) thanking Teaching Research for the materials, 2) asking that the CORD Program be continued, 3) mentioning the lack of time for sufficient study during the workshop, 4) mentioning that they plan to continue studying the material, and 5) making suggestions for adding materials which would cover additional areas.

Regional Workshop Evaluations by Administrators

Of the 28 participants in the summer institute at Teaching Research, 25 have responded to the request for feedback information as of this writing. Of the 25, one person has been ill and plans are being made to hold his workshop during the 70-71 academic year, two persons were not able to hold a workshop because CORD funds in their regions had been cut back, and there were not sufficient resources to hold workshops, and two persons made arrangements to attend the summer institute without committing themselves to holding a workshop. All of the summer institute participants have received the training materials developed at Teaching Research except for one, who has never answered the request for his order, nor has he answered letters or returned telephone calls. Three persons who requested and received the materials have not returned reports on their workshops. This report, therefore, contains information received from 20 workshop administrators.

The information from workshop administrators contained in this report was gathered primarily through the use of an open-ended questionnaire which may be found in Appendix A. Comments received from workshop administrators are summarized in Table I, Appendix B.

As may be seen in Table I, Appendix B, the modal number of institutions represented at the regional workshops was from three to five, one of which was in each case the administrator's home institution. Six workshops were conducted solely for the administrators' home institutions, and three workshop administrators invited participants from 12-16 CORD institutions in their region. As was mentioned above, the workshops varied in size from 10 participants to over 100 participants. In addition, all of the respondents indicated that the CORD instructional packages are being currently circulated among the workshop participants, or among colleagues who did not attend the workshops, or both (see Table I, Appendix B).

Workshop participants, as mentioned above, typically were staff members from colleges and small universities, although some workshops were well attended by public or parochial school personnel.

Because a limited amount of time was provided in the workshops for actually gaining competencies in research, evaluation and/or development, the major goal of most workshop administrators was to acquaint participants with the resource materials available and to provide them with the available materials. In most cases the latter goal was approached through providing the Teaching Research instructional packages for study at the workshop, and devising a procedure whereby workshop participants could use the materials at their initiative for individual study (see Table I, Appendix B).

Although the instructional packages were designed for individual study, many of the summer institute participants felt that supplementary small-group sessions were of great benefit. Consequently, the majority of the workshops followed a format of individualized study combined with some sort of general session(s) or special interest small-group sessions (see Table I, Appendix B). In only two workshops did the administrators rely completely on individualized study of the instructional packages. The workshop participants' forms from these two workshops reflected the feeling that some interaction either between administrators and participants or among participants would have been desirable.

Workshop administrators were asked to rank order the materials presented in their workshops according to how useful the materials were to participants and how well they fulfilled the needs of particular workshop administrators. The rank order is reported below as summarized from the evaluation forms received.

Rank Order of Materials Presented in Workshops According to Usefulness

Rank	Instructional Area
1	Proposal Writing
2	Experimental Design
3	How to Use the ERIC System
4	The Logic of Statistics
5	Affective Measures
6	Measurement
7	Evaluation (or separate topics therein)
8	Individually Prescribed Instruction
9	Testing
10	Sampling
11	ComField Phase II Documents

When asked what competencies they felt their participants had gained during the workshop, nine administrators indicated that proposals had been written or at least begun during the workshop. This fact would seem to substantiate the high ranking attributed to the Proposal Writing Package. Five workshop administrators replied that their

participants had begun research projects during the workshops. Other responses received were that participants learned how to use the ERIC system, and learned how to use the Teaching Research resource materials for future study (see Table I, Appendix B).

It may again be noted, as reported above in the Evaluations from Participants section, that many participants did not feel that they could report on competencies gained during the workshop because of the limited amount of time allowed for study.

Additional comments were elicited from workshop administrators as they were from participants. In general, the comments received were much the same as those received from the participants; administrators felt that the materials were "very valuable" (most common response: see Table I, Appendix B), and that their participants had been stimulated toward initiating research projects. Additional comments in answer to this item on the questionnaire were that individual workshops were a large success (3 administrators) that valuable lines of communication had been initiated between both administrators and participants and between participants (3 administrators). The latter response was given by administrators that had invited participants from a range of institutions within their CORD district, thus establishing contacts between persons that had not previously met, but who were working in similar areas.

Two administrators made suggestions for materials that might be included in any further development of instructional packages and two administrators pointed out parts of the existing packages that could be further refined or updated. Teaching Research will be taking these suggestions into account in any further revisions of the CORD instructional packages. One administrator (whose workshop was scheduled for early fall, 1969) mentioned that the materials had been slow in arriving from Teaching Research.

CONCLUSIONS

The main focus of evaluation of the regional workshop phase of the 1969 CORD institute conducted by Teaching Research was on the degree of success of the multiplier effect. It is clear from the regional feedback reported above that not only were the instructional materials utilized in the workshops, but are still being circulated, both among workshop participants and among other colleagues. Moreover, several workshop administrators plan additional workshops in which they will use the materials.

It should also be noted that in most cases the CORD participants extended their commitment to hold a workshop for a "small number of colleagues." As may be seen in the data presented above, many workshop administrators invited a large number of participants, in some cases extending open invitations to public school personnel and to faculty and graduate students from colleges and universities from their entire CORD region. Although it is clear from the participants' reactions that only a limited amount of actual training took place because of the short duration of the workshops, it also seems clear that participants gained some knowledge of the materials available, of the areas of research, development and evaluation as they relate to education, and of the CORD objectives for their regions. In addition, potentially valuable lines of communication were set up within CORD regions among persons interested in similar topic areas. Many persons, seemingly for the first time, learned techniques that could be applied in classroom teaching, or for the first time, learned how to use the ERIC system.

Unfortunately, it is not clear at this point what else is being multiplied in the multiplier effect. In neither the summer institute nor the subsequent regional workshops was there an independent objective evaluation of the usefulness or the effectiveness of the instructional materials. On the basis of feedback from the workshops, revisions need to be made in some of the packages. However, these revisions are not as needed nor as extensive as those which would grow out of the use of these packages over several carefully monitored instructional cycles. For example, on the basis of local use by teaching Research staff members, the Evaluation package has recently undergone extensive revision and expansion. On the other hand, the Proposal Writing and the Experimental Design packages had gone through field tests and revisions prior to dissemination to the regional workshops and hopefully would require little or no modification from their present form until new developments in educational research or instructional technology would outdate them.

The design of the project did not insure the production of objective data to determine if participants in either the summer institute or the subsequent workshops gained either in RDD&E skill levels or in the teaching of such skills as the direct result of being involved in this project. This deficiency in the project which is apparent now but not when the project was designed and funded reflects the rapidly growing awareness of the need for a different emphasis in the evaluation of field-centered, self-instructional training projects. If field-centered training with self-instructional materials is superior to conventional academic on-campus courses, that superiority will have to be demonstrated by the improvement in RDD&E products produced by those trained, and not just by the enthusiastic endorsement of either the trainers or the trainees.

RECOMMENDATIONS

We make the following recommendations with respect to the current use of these instructional materials:

1. If continued dissemination of the full set of these materials is planned, it should be only for the purpose of acquainting as many persons in education as possible with the rapidly expanding areas of instruction in educational research, instructional development, dissemination and evaluation (RDD&E). Special efforts should be made to acquaint professors of educational research with these materials. Although it would be apparent to anyone using these materials in an instructional setting, dissemination should be accompanied by a statement that these materials are not in final form, but rather are in a continuing state of development and refinement. Users should request to be put on a Teaching Research mailing list to be advised of revisions and additions to the original set of materials.

2. Formal projects should be undertaken to bring recently developed and less intensively field tested packages up to the level of the more highly evolved materials. This recommendation applies most strongly to the packages on Affective Measures, Evaluation, and Measurement for which widespread demand and need exist at all levels of education and especially for the training of RDD&E personnel.

3. Nationwide interest in the present CORD instructional materials has been demonstrated. Additional materials should be developed to cover areas presently not included. Suggested topics are:

   (a) Preparation of Final Reports;
   (b) Organizational Structure of the U.S. Office of Education;
   (c) Resource Agencies including State Departments of Education, National Center for Educational Communication, R&D Centers, Regional Laboratories, private industry, and U.S.O.E., Regional Offices' research programs;
   (d) Dissemination;
   (e) Implementation;
   (f) Field Testing;
   (g) Program Planning and Budgeting Systems (PPBS).

   Packages should be built around each of these topics. The package for (c) Resource Agencies could follow the model of Teaching Research's ERIC package.

4. The 1969-70 CORD project as conducted by Teaching Research provides one model for dissemination to faculty members in colleges and small universities. Further development and subsequent dissemination of these and similar materials should be undertaken to make possible their incorporation in pre-professional and graduate training programs.

Large public school districts recognize a great need for this type of training for special staff and administrators. Smaller districts have needs as great, but they may be unrecognized at the local level. College and university faculties, boards of higher education, and state legislators now are greatly concerned about the necessity for improving undergraduate instruction. To improve this instruction will require specialized training of many persons in higher education in RDD&E topics. The more highly developed CORD instructional materials and the dissemination model described in this report provide a possible starting point for implementing this training.

5. In order to determine the impact of field-centered training projects using self-instructional materials, more effective means of evaluation will have to be devised and incorporated in the design of these projects. The focus of the evaluation of field-centered training projects must shift from what the training supervisors and their trainees in the field say about the materials, or the extent of usage of the materials, to the quality and amount of RDD&E products which flow out of this type of training. The costs to produce these products will then have to be compared to the costs of similar products produced by conventional on-campus instruction to determine the relative effectiveness and efficiency of these two forms of training. User satisfaction cannot be ignored, but it should not be the major criterion.

A P P E N D I C E S

APPENDIX A

MEMORANDUM

TO: CORD Workshop Administrators

FROM: Bette Porter

RE: Workshop Description & Participants' Evaluation of Materials

DATE: January 26, 1970

We are requesting information concerning your CORD Workshop to help us in further revisions of the materials, to assess the extent of the multiplier effect created by providing you with copies of the materials used in the CORD Institute at Teaching Research, and to ascertain which kinds of materials and subject-areas are most useful to this type of program. The terms of our Grant also require us to report on the reactions of your participants to the materials they used, the competencies they achieved, and any research, evaluation, or development projects that may have been undertaken since your Workshop.

Will you please answer the following questions about your Workshop as soon as possible and return them to me? Forms to be distributed to your Workshop participants are also enclosed. Please forward copies to at least a sample of your participants if the Workshop has already been held, or distribute them to people during your Workshop. I know that some of you have designed and used your own evaluation sheets, and I would be happy to have copies or summaries of the information you received in lieu of the forms enclosed.

May we remind you that the staff at Teaching Research will be happy to answer any questions that may arise concerning the materials or the subject-areas. We are very pleased with the reports of Workshops that we have received thus far and are looking forward to hearing from the rest of you, as well as from your Workshop participants.

In answering the following questions, please feel free to write on the back or attach additional pages if necessary.

1. Name:_____

2. Date(s) of Workshop:_____

3. Number of Participants:_____

4. Institutions Represented:_____

_____

5. Main Goal(s) of Workshop:_____

_____

_____

_____

_____

6. Format of Workshop:_____

_____

_____

_____

_____

7. Other than in the Workshop, are materials being circulated? _____

_____

a. Among Workshop Participants? _____

b. Among Other Colleagues? _____

8. Please rank order the materials you presented in your Workshop according to how useful you feel they were to your colleagues, how well they fulfilled your needs, etc. A list of available packages follows for your convenience:

_____Logic of Statistics

_____Affective Measures

_____Testing

_____Evaluation

_____Measurement

_____Sampling

_____ComField Phase II Documents

_____Individualized Instruction

_____E.R.I.C.

_____Experimental Design

_____Proposal Writing

9. Please evaluate the competencies achieved by your participants relative to the goals you set. Copies or summaries of any evaluation data that you collected would be very helpful.

   Do you have any evidence to indicate that participants (1) acquired specific knowledges, (2) applied knowledge to produce material, e.g., proposals, research designs, measurement instruments, etc., or to evaluate data, instructional programs, course objectives, etc.

10. Please list any programs or projects in research, evaluation, or development that you have proposed or undertaken during this academic year.

11. Are there any additional comments that you would like to make?

MEMORANDUM

TO: CORD Workshop Participants

FROM: Bette Porter, Teaching Research

RE: Workshop Information and Materials Evaluation

We are gathering information about the CORD Workshop in which you participated. We would appreciate receiving your comments concerning the instructional materials, as they will be very helpful to us in revising the training packages developed at Teaching Research, as well as indicating the type of materials and subject areas which best serve your needs and interests.

The terms of our Grant also require some assessment of the competencies achieved by Workshop participants. Because most of the training materials were designed to be self-instructional, we are asking that you provide us with this information in lieu of any formal testing. Your prompt reply to the questions below will be very much appreciated. Please send completed forms to: Mrs. Bette Porter, Instructor
Teaching Research
Monmouth, Oregon 97361

The staff at Teaching Research will be happy to answer any questions about the materials or subject areas that you might have. We hope that you found the materials to be beneficial, and look forward to receiving your comments.

Name:_____

Position:_____

Institutional Affiliation:_____

1. Which CORD materials did you use during the Workshop? (For your convenience, a list of topics that may have been offered follows.)

_____Logic of Statistics

_____Affective Measures

_____Testing

_____Evaluation

_____Measurement

_____Sampling

_____ComField Phase II Documents

_____Individualized Instruction

_____E.R.I.C.

_____Experimental Design

_____Proposal Writing

2. Please react to the materials you used, evaluating strengths and weaknesses, applicability to your needs, clarity of presentation, etc., and offering any suggestions for improvement, or additional subject areas that you would like to be included in programs of this type.

_____

_____

_____

_____

_____

_____

_____

_____

3. Did you have a definite goal in mind when you enrolled in the Workshop? Was it reached? If not, why?

_____

_____

_____

_____

_____

4. What competencies do you feel you gained as a result of the Workshop and any follow-up activities, e.g., specific knowledges, skills in analysis, application of the materials presented to specific areas of your interests.

_____

_____

_____

_____

_____

5. Please list any products that may have emerged from the Workshop, e.g., grant proposals, research designs, measurement instruments or evaluations of projects, research data, or instructional programs, etc.

6. Please list any programs or projects in research, evaluation, or development that you have proposed or undertaken since the CORD Workshop.

7. Do you have any additional comments?

APPENDIX B

Table I

Summary of Information Gained from Administrators' Forms

Response Category from Workshop Administrators' Form	Number of Administrators Responding
1. Number of Institutions represented at Workshop:	
One	6
3 - 5	7
12 - 16	3
2. Types of Institutions represented at Workshop:	
College or University	16
Public School Systems	5
3. Goals of Workshop:	
To acquaint participants with the resource materials available, and to provide them with such materials.	14
To stimulate educational research	12
To acquaint participants with the objectives of the CORD Program in their Region	4
To teach participants how to write research proposals	5
To encourage individually prescribed instruction	5
To introduce participants to the use of the ERIC System	2
To encourage the use of behavioral objectives in classroom teaching	1
4. Format of Workshop:	
Individualized study supplemented with general sessions	11

Individualized study with general sessions plus consultation	3
Completely individualized study	2

5. Whether materials are still being circulated:

Yes: among Workshop participants	15
Yes: among colleagues not attending Workshop	15

6. Competencies that Workshop Administrators' felt their participants gained during the Workshop (see also, participants responses)

Proposals written or stated during Workshop	9
Participants began research project(s)	5
Participants learned how to use the ERIC System	3
Participants learned how to use the Teaching Research resource materials for future study	3

7. Whether research projects were implemented during or following the Workshop

Yes: implemented during the Workshop	11
Yes: begun following the Workshop	10

8. Additional comments:

Participants found the materials to be very valuable	7
Participants were stimulated toward initiating research projects	4
The workshop was a large success	3
Both participants and administrators made valuable contacts with peers/colleagues	3
Administrator asked for a continuation of revision/updating of the materials	2
Administrator made comments concerning additional materials in other areas which might be included	2
Materials were slow in being mailed from Teaching Research	1

APPENDIX B

Table II

Summary of Information Gained From Workshop Participants' Forms

1.	Sex of participants:		
		Male	47
		Female	33
2.	Position held by responding participants:		
		College/University Faculty	51
		Public School administration	11
		Graduate Students	5
		Public School teachers	4
		College/University Administration	3
		Public School research	3
		Librarian	2
3.	Materials used during Workshops:		
		Proposal Writing	59
		Research Design	50
		Evaluation	41
		Measurement	28
		Individually Prescribed Instruction	21
		How to Use the ERIC System	20
		Sampling Procedures	15
		Testing	15
		Affective Measures	13
		Logic of Statistics	12
		ComField Phase II Documents	3

4. Participants' reactions to materials:

Very good or excellent	37
Participant mentioned a specific instructional package as outstanding	29
Materials provided a good overview of the areas of educational research	18
Materials were clearly written	14
Materials can be utilized in classroom teaching/in-service meetings, etc.	8
Mentioned the poor technical quality of Workshops materials, either those developed at Teaching Research, or duplicated at the host institution	7
Asked for further development of some instructional packages	7
Participant felt that materials ranged from poor to excellent	4
Participant felt that the time allowed for the Workshop did not provide enough opportunity for study	4
Lack of sophistication in the materials	4

5. Number of research projects initiated since the Workshop by participants:

Not applicable due to date participant was filling out form	20
Mentioned one initiated project	7
Mentioned three or more initiated projects	7
"None"	2
Began dissertation	1

6. Competencies that participants felt they gained as a result of the Workshop:

Gained knowledge of educational research areas/ overview of areas or materials	21
Learned how to write research proposals	6

Not enough time was allotted in which to gain "competencies"	2
Learned how to analyze proposals	1
Learned research methodologies	1

APPENDIX B

Table III

Alphabetical Listing of Institute Participants
and Number Attending Their Respective Workshops

Participant	Number Attending Workshop
Adair	20
Barone	no institute as yet
Berg	no institute as yet
Bowen	25+
Chissom (with Ramsey)	50
Colmey (assumed by Petry)	52
Friedrichs	70
Gold	15+
Grieve	26
Sister Lauriana	55+
Herrick	no information on workshop
Hunter (with Read)	107
Johnson, C. (with Tolg)	26
Johnson, W.	10
McCowan	30+
Mandelare	20
Mogan	no information on workshop
Montgomery	has given no workshop
Norman	40
Ramsey (with Chissom)	50
Read (with Hunter)	107
Reeling	no information on workshop
Reevy	workshop to be held academic 70-71

Participant	Number Attending Workshop
Reid	did not contract to hold a workshop
Swick	OE representative: did not contract to hold a workshop
Theodosion	26
Tolg (with C. Johnson)	26